ENVIRONMENTAL SERVICES DEPARTMENT
AIR QUALITY DIVISION
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November 19, 1998

Mr. Roger Ferland
Arizona Association of Industries
1111 North Third Street
Phoenix, AZ 85004

Reference: Your Draft Letter of September 14, 1998
Request for Confirmation of County Position on the BACT Trigger Regulation

Dear Mr. Ferland:

First, we would like to express our appreciation for your time and effort in writing to us concerning our position on BACT triggering level of Rule 241. As a regulatory agency in the non-attainment areas of Maricopa County, we recognize the need to have a periodical review with industry for the status and effectiveness of the BACT implementation program. After a review of the issues raised in your above referenced draft letter and the subsequent discussion we had in a conference call on October 14, 1998, we would like to address your concerns as follows. We believe this clarification of the County's position on the BACT Trigger Rule is consistent with the recent rievisions to Rule 220.

RACT REQUIREMENTS

Maricopa County requires all sources to apply RACT until the emission level reaches the appropriate BACT thresholds.

Before the source reaches the appropriate BACT thresholds, all sources are required to comply with Regulation III (300 Series of the County's Rules). The 300 series County Rules are in fact RACT Rules. If the source is not subject to any part of Regulation III, the lowest emission limitation is established by the source's capability to apply the control technology. The control technology must be reasonably available considering technological and economic feasibility to the source.

Thus, the County has a policy to evaluate a permit application/revision for a new source or modification to the existing source based on:

1. A RACT controlled emission level.
2. An emission level which takes into account the effect of an inherently integrated control device or that is part of its design of the subject emission source, provided that the effect on the reduction of emissions is incorporated into an enforceable permit condition.

3. An emission source which has physical and/or operational limitations incorporated into the permit as an enforceable permit condition.

BACT REQUIREMENTS

Once BACT (Rule 241, Section 301) is triggered, the county's approach in determining BACT is to place on the source the responsibility for presenting and defending the technology selection. As you know, BACT is to be determined on a case-by-case basis rather than automatically applying an applicable standard, if any.

Normally, BACT should address control of each emission point at a facility, including fugitive as well as stack emissions. Upon a review of the proposed control method, our determination of BACT is to be performed on a case-by-case basis considering energy, environmental and economic impacts, and other costs.

The direct cost for each control system proposed as BACT or control alternative should be presented for a whole facility or the entire modification. If the costs of BACT control become prohibitive, the County may consider a cost analysis based on the incremental cost for each sectional control system. The cost effectiveness for each sectional control system will be a decision factor in determining which sectional BACT control system should apply. In other words, one or more sections of the facility may be under BACT control due to the cost effectiveness consideration, while the other sections could be determined as an equivalent BACT control area.

A draft of BACT General Guidelines will be prepared for comments. This document will not only clarify the past policy and summarize the general procedures with which the County has implemented the BACT program in the past, but also be a simplified document and more user friendly for the implementation of the BACT process.

If you have any questions, please contact me at (602) 506-6701 or Harry Chiu at (602) 506-6736.

Sincerely,

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Steven E. Peplau, Manager
Air Quality Division

Concur:

_____

Albert F. Brown, Director
Maricopa County Department of Environmental Services

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THE BEST AVAILABLE CONTROL TECHNOLOGY GUIDELINES

November 19, 1998

The Best Available Control Technology (BACT) Guidelines summarize the key policy issues and outline the review process and the procedures of how a BACT process should be implemented.

Maricopa County Air Pollution Control Regulations, Rule 241, Section 301, provides the following requirements:

301 **Best Available Control Technology (BACT) required:** An applicant for a permit or permit revision subject to Rules 210, 220, or 230 of these rules shall apply BACT for each pollutant emitted which exceeds any of the threshold limits set forth in any one of the following criteria:

301.1 Any new stationary source which emits more than 150 lbs/day or 25 tons/year of volatile organic compounds, nitrogen oxides, sulfur dioxide, or particulate matter, more than 85 lbs/day or 15 tons/year of PM10; or more than 550 lbs/day or 100 tons/year of carbon monoxide.

301.2 Any modified stationary source if the modification causes an increase in emissions on any single day of more than 150 lbs/day or 25 tons/year of volatile organic compounds, nitrogen oxides, sulfur dioxide, or particulate matter, more than 85 lbs/day or 15 tons/year of PM10; or more than 550 lbs/day or 100 tons/year of carbon monoxide. BACT is only required for the sources or group of sources being modified.

BACT REQUIREMENTS

Once BACT (Rule 241, Section 301) is triggered, the county's approach to determining BACT is to place on the source the responsibility for presenting and defending the technology selection. BACT is then to be determined by the County on a case-by-case basis rather than automatically applying an applicable standard, if any.

Normally, BACT should address control of each emission point at a facility, including fugitive as well as stack emissions. Upon review of a proposed control method, our determination of BACT is to be performed on a case-by-case basis considering energy, environmental, and economic impacts and other costs.

RACT REQUIREMENTS

Maricopa County requires all sources to apply RACT until the emission level reaches the appropriate BACT thresholds.

Before the source reaches the appropriate BACT thresholds, all sources are required to comply with Regulation III (300 Series of the County's Rules). The 300 series County Rules are in fact RACT Rules. For sources not subject to Regulation III, the lowest emission limitation is established that a source is capable of achieving by the application of control technology. That technology must be reasonably available considering technological and economic feasibility to the source.

BACT REVIEW PROCEDURES

a. BACT TRIGGER LEVEL

To determine whether a BACT requirement is triggered, the County has a policy to evaluate emission levels of a permit application/revision of a new source or modification to the existing source based on:

1. A RACT controlled emission level.

2. An emission level that takes into account the effect of an inherently integrated control device or that is part of the design of the subject emission source, provided that the effect on the reduction of emissions is incorporated into an enforceable permit condition.

3. An emission source that has the effect, and/or limitations incorporated into the permit as an enforceable permit condition from:

    - A fully functional add-on control equipment.
    - Physical and/or operational limitations.

b. THE TOP-DOWN ANALYSIS

1. The top-down analysis requires that all available control technologies are ranked in descending order of effectiveness. The applicant has the primary responsibility to rank the effectiveness of each control technology applicable to the subject emission source.

2. To streamline the above selection process, and also serve as an interim measure, a control technology listed by South Coast Air Quality Management District (SCAQMD) will be accepted by the County as a viable alternative.

3. Should the applicant decide not to apply the top-ranked control technology nor to use the applicable control technology listed by SCAQMD, the applicant must conduct a cost effectiveness analysis to justify the economic impact that the most stringent (top-ranked or listed) control technology is not achievable.

4. For the cost effectiveness analysis, the applicant should use the discounted cash flow (DCF) method in order to compare different control methods for cost effectiveness. In summary, the DCF method calculates the present value of control costs over the life of the control equipment by adding the capital cost to the present value of all annual costs over the life of the equipment (assumed to be 10 years). The DCF method is chosen because it can take into account annual operating, maintenance and utility costs that are not constant each year.

5. The total annualized cost is then divided by the annual emission reduction to obtain the cost effectiveness in dollars per ton.

6. As resources permitted, a study of the cost effectiveness values (CEV) for each criteria pollutant will be planned in the coming months and shall be updated periodically.

7. Before a CEV value for each criteria pollutant is developed, a "case-by-case" determination is to be used when evaluating cost effectiveness analysis until the above study is completed.

c. SECTIONAL BACT CONTROL

Upon the determination that the BACT requirement is trigger, the direct cost for each control system proposed as BACT or control alternative should be presented for a whole facility or the entire modification. If the costs of BACT controls become prohibitive, the County may consider a cost analysis based on the incremental cost for each sectional control system. The cost effectiveness for each sectional control system will be a decision factor in determining which sectional BACT control system should apply. In other words, one or more sections of the facility may be under BACT control due to the cost effectiveness consideration, while the other sections could be determined as an equivalent BACT control area.